



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,096	03/12/2004	Richard M. Hogan	4022-000014	8094

27572 7590 09/22/2006

HARNESS, DICKEY & PIERCE, P.L.C.
P.O. BOX 828
BLOOMFIELD HILLS, MI 48303

EXAMINER

DESAI, ANISH P

ART UNIT	PAPER NUMBER
----------	--------------

1771

DATE MAILED: 09/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/800,096	HOGAN ET AL.	
	Examiner	Art Unit	
	Anish Desai	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The applicant's arguments in response to the Office action dated 04/03/06 have been fully considered.

1. Claims 1-12 and 31-46 are cancelled. Claims 13- 30 are pending.
2. All of the art rejections are maintained.
3. A new ground of rejection is made in view of Krueger et al. (US 4,552,714).

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 13-16 rejected under 35 U.S.C. 102(b) as being anticipated by Krueger et al. (US 4,552,714).

Krueger teaches a novel coextruded plastic film that has an adhesive layer between polypropylene and nylon layers (abstract). Further, Krueger teaches layer 12 may be a polypropylene homopolymer, a propylene ethylene copolymer, or a blend of polypropylene and polyethylene (column 1, lines 61-63). The adhesive layer 14 is a

Art Unit: 1771

blend of grafted copolymer of polypropylene and maleic anhydride and an ungrafted polypropylene (column 2, lines 24-26). The layer 12 and layer 14 of Krueger reads on expendable polymeric layer A and thermoplastic adhesive layer B.

5. Claims 13 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohya et al. (US 4,567,090).

Ohya teaches A heat-resistant laminate film of the present invention comprises a gas-barrier layer(D) of a copolymer of vinylidene chloride and at least one comonomer copolymerizable with vinylidene chloride, outer layers(A) of polypropylene and two adhesive layers of polyolefin modified by acid and thermoplastic polyurethane disposed between any of the above layers and bonded with each other, the modified polyolefin adhesive layer(B) being bonded to the outer layer and the thermoplastic polyurethane adhesive layer (C) being bonded to the gas-barrier layer, and the heat-resistant laminate film of the present invention is produced by coextruding the above resin layers in the order of A/B/C/D/C/B/A (column 2, lines 4-16). The modified polyolefin layer B and thermoplastic polyurethane adhesive of Ohya reads on expendable polymeric layer A and thermoplastic adhesive layer B as claimed respectively.

6. Claims 13, 17, 22, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Zabrocki et al. (US 5,334,450).

Zabrocki teaches a flexible film structure comprising at least one layer selected from ethylene/propylene rubber (claim 1), intermediate tie layer underlying the weatherable layer that is selected from polyethylene and polyurethane (claim 2), and at least one adhesive layer underlying said intermediate tie layer wherein the adhesive

Art Unit: 1771

layer is selected from ethylene copolymer, chlorinated polyethylene, and polyurethane (claim 3). Further, Zabrocki teaches that the film of the present invention can be prepared by coextrusion (column 7, lines 5-6).

7. Claims 13 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Korpman (US 4,379,806).

Korpman teaches a pressure sensitive adhesive tapes with various backing films which are prepared by a single step process of coextruding a backing film forming composition and an adhesive composition (abstract). The backings of Korpman are formed of polyolefins (column 1, lines 59-60) and adhesive is formed of thermoplastic rubber (column 2, line 1).

8. Claims 13,14,16-18,20-23, 25-27, and 30 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Katsuki et al. (US 4,427,743) substantially as set forth in 04/03/06 Office action.

Katsuki et al. teach a laminated panel for use as safety glasses for vehicle (Column 4, lines 61-62) having good transparency (Column 2, lines 38-39). The laminated panel is comprised of a plastic sheet and a glass sheet (abstract). Figure 2 of Katsuki et al. shows, a laminated panel comprising a cushioning layer 4 sandwiched between the two plastic sheets 3A' and 3B' (Column 5, lines 26-30). According to Katsuki et al., fabrics made from polypropylene fibers can be embedded in the plastic sheets (Column 9, lines 9-11 and Column 9, lines 25 and 27). The plastic sheet of Katsuki et al. reads on the claimed expendable polymeric layer A. Moreover, the cushioning layer 4 of Katsuki et al. is made of resins such as copolymer of ethylene and

Art Unit: 1771

vinyl acetate and polyurethane (Column 5, line 54-55) and has sufficient tackiness or adhesiveness (Column 7, lines 44-47). Thus, the polyurethane based cushioning layer of Katsuki et al. reads on the claimed thermoplastic adhesive layer B made of polyurethane as claimed in claims 13,17, and 26. Regarding claims 18 and 27, at column 6, line 42, Katsuki et al. teach two cushioning layers (Column 6, line 42). With respect to claims 20 and 29, at column 12, line 65, Katsuki et al. teach a polyurethane layer with thickness of 2 mm, which equates to 0.079 in (using 1 mm = 0.039 in).

With respect to the recitations "co-extruded A-B composite sheet" or "co-extruded A-B-A composite sheet", the said recitations are directed to a product by process limitations. The products by process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps. "Even though product by process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product by process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985).

Once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289, 292 (Fed. Cir. 1983). In the instantly claimed subject matter, the composite sheet of the applicant comprises an expendable

Art Unit: 1771

polymeric layer A and a thermoplastic adhesive layer B (A-B) as claimed or an expendable polymeric layer A, a thermoplastic adhesive layer B, and an expendable polymeric layer A (A-B-A) as claimed. Katsuki also discloses a laminated panel comprising a plastic sheet 3A', cushioning layer 4, and plastic sheet 3B' (Column 5, lines 26-30). According to Katsuki et al., fabrics made from polypropylene fibers can be embedded in the plastic sheets (Column 9, lines 9-11 and Column 9, lines 25 and 27). Thus, the plastic sheet of Katsuki et al. reads on the claimed expendable polymeric layer A. Moreover, the cushioning layer 4 of Katsuki et al. has sufficient tackiness or adhesiveness (Column 7, lines 44-47) and is formed of resins such as polyurethane (Column 5, line 54-55), which is thermoplastic. The cushioning layer of Katsuki et al. reads on the claimed thermoplastic adhesive layer B. Thus, the laminated panel of Katsuki is similar to the applicant's co-extruded A-B or A-B-A composite wherein A is an expendable polymeric layer and B is a thermoplastic adhesive layer.

With respect to claims 21 and 30, Although Katsuki et al. do not explicitly teach the claimed property of the expendable polymeric layer having a tensile strength greater than the mechanical bond between the thermoplastic adhesive layer and the expendable polymeric layer, it is reasonable to presume that said property is necessarily present in the laminated panel of Katsuki et al. because like material has a like property. The applicant is using an expendable polymeric layer and a thermoplastic polyurethane adhesive layer to form a composite sheet and Katsuki et al. also disclose a laminated panel comprising a plastic sheet and a cushioning layer made of a polyurethane layer wherein the polyurethane layer has sufficient adhesiveness. Thus,

Art Unit: 1771

the laminated panel of Katsuki et al. is similar in structure to the composite sheet of the present invention. Thus, the presently claimed property of the expendable polymeric layer having a tensile strength greater than the mechanical bond between the thermoplastic adhesive layer and the expendable polymeric layer would have been present. Accordingly, Katsuki et al. anticipate or strongly suggest the claimed subject matter.

9. Claims 15,19,24, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katsuki et al. (US 4,427,743) as applied to claims 13 and 22 above in view of Friedman et al. (US 6,159,608) substantially as set forth in 04/03/06 Office action.

The invention of Katsuki et al. as applied to claims 13 and 22 is previously disclosed. According to Katsuki et al., there is no limitation on the material of the plastic sheet and transparent resins with moderate flexibility and strength that can be used as plastic sheets (Column 5, lines 3-7). Katsuki et al. are silent as to teaching of the polymeric layer made of polyethylene and the thickness of the polymeric layer from 0.003 in to 0.01 in. However, Friedman et al. teach high clarity optical and safety glass laminates (abstract) used in the automotive industry (Column 1, lines 10-13).

Additionally, Friedman et al. teach polyethylene based films having high clarity, very high moisture resistance, high UV light stability, and good heat resistance (Column 3, lines 18-22) used as an interlayer film in forming laminated glass product. Regarding claims 19 and 28, the thickness of the polyethylene film is 0.125 mm to 1.0 mm. The thickness of the polyethylene film equates to 0.0049 in to 0.039 in respectively (using 1

Art Unit: 1771

mm = 0.039 in). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a polyethylene film of Friedman et al. with a given thickness as a plastic sheet of Katsuki et al., motivated by the desire to provide a laminated panel with high clarity.

Response to Arguments

10. Applicant's arguments filed 06/27/06 have been fully considered but they are not persuasive.

102/103 type rejections in view of Katsuki are maintained for the following reasons. The applicant argues that Katsuki does not disclose A-B or A-B-A composite sheet but rather discloses a five-layer composite as show in the Figure 2 of Katsuki reference. The examiner acknowledges that Katsuki reference discloses a five-layer composite, however the claimed language does not explicitly exclude other layers from A-B or A-B-A composite sheet of the presently claimed invention. As stated in 04/03/06 Office action (pages 3-6), the five-layer composite of Katsuki incorporates expendable polymeric layer A and thermoplastic adhesive layer B of the presently claimed invention. If the applicants wish to exclude other layers from the claimed composite sheet, the claimed language should be amended to reflect such exclusion. Accordingly art rejections of Katsuki are maintained.

The applicant has generally shown disagreement with examiner's rejections of claims 15,19,24, and 28. However, the applicant did not point out any specific errors in the examiner's rejection, therefore rejections of claims 15,19,24, and 28 are maintained.

Art Unit: 1771

Conclusion

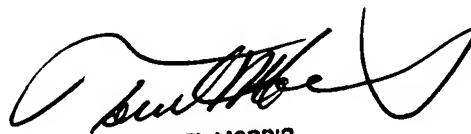
This rejection is made Non-Final in view of newly discovered references.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anish Desai whose telephone number is 571-272-6467. The examiner can normally be reached on Monday-Friday, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

APD



TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700